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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,445	11/30/2001	Shinji Watanabe	P/2054-137	5619

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EXAMINER

WONG, BLANCHE

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,445

Applicant(s)

WATANABE, SHINJI

Examiner

Blanche Wong

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Nov'01, Dec'03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Examiner notes that cl. 12 does not depend on any other claim.

Drawings

2. Figures 7 and 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to cl. 1, it is unclear whether "a receivable range" in ln. 9 is referring to the radius from transmission point P1 in Fig. 10, "the modulation level of said carrier" in ln. 8, or transmission amplitude, frequencies, or phase.

With regard to cl. 2, it is unclear whether "a predetermined level" in ln. 6-7, is the same predetermined level as in ln. 4-5.

With regard to cl. 7, it is unclear whether "a modulation method" in ln. 6, is the same OFDM modulation method in cl. 1, ln. 5.

With regard to cl. 7, it is unclear whether "a modulation method of each carrier" in ln. 13-14, is the same modulation method of each carrier in cl. 11-12.

With regard to cl. 8, it is unclear what is the arrangement in ln. 2-3, although it is provided the arrangement is between said serial-parallel conversion circuit and said modulation level setting means.

With regard to cl. 8, it is unclear which part of the claim limitation is "and a data of a modulation method different from others is included in a data for said one layer" in ln. 5-7, referring to.

With regard to cl. 12, it is unclear what is claim in ln. 2, and what is "a layer division section" in ln. 3.

5. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "predetermined transmission electric power" in ln. 5-6.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-7 and 9-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-101542 and JP 11-145928 (both provided by the Applicant), as stated in Non Patent Literature Document – Copy of Japanese Office Action dated Nov. 18, 2003 (hereby known as "NPL") (also provided by the Applicant).

With regard to cl. 1-7, and 9-13, JP 2000-101542 (Claims 1-3, Detailed Description of the Invention section, para. [0002], [0003], [0028], [0029], [0039] and Fig. 2) discloses the setting of modulation levels for different hierarchical layers. "[T]he modulation levels are set in such a manner that the ranges where the modulation signals of the various hierarchical layers can be received may become the same range

according to Claims 1-7 and 9-13...", NPL, p. 1, para. 3. However, JP 2000-101542 fails to explicitly show a setting method.

In analogous art, JP 11-145928 (Claims 1-2, Detailed Description of the Invention section, para. [0041] and Fig. 2) discloses a technical concept "whereby the carrier power is set in such a fashion that the transmission characteristics of each carrier modulation method may become uniform," NPL, p.1, para. 4.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include uniform transmission characteristics. The suggestion/motivation for doing so would have been to provide for improvement of transmission and spectrum operation within OFDM. JP 11-145928, Detailed Description of the Invention, para. [0002]-[0003]). Therefore, it would have been obvious to combine JP 11-145928 with JP 2000-101542 for the benefit of uniform transmission characteristics, to obtain the invention as specified in cl. 1-7 and 9-13.

8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-101542 and JP 11-145928 as applied to claims 1-7 and 9-13 above, and further in view of JP 11-313290 (as provided by the Applicant), as stated in Non Patent Literature Document – Copy of Japanese Office Action dated Nov. 18, 2003 (hereby known as "NPL") (also provided by the Applicant).

With regard to cl. 8, the combination of JP 2000-101542 and JP 11-145928 discloses a broadcasting apparatus using an OFDM modulation method recited in cl. 7. However, the combination fails to explicitly show how to time-multiplex different kinds of data and carry out modulations by means of the modulation method corresponding to said different kinds.

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In analogous art, JP 11-313290 discloses a technology "to time-multiplex different kinds of data [video and voice in Fig. 2 and 3] and carry out modulations by means of the modulation method corresponding to said different kinds", NPL, p.2, para. 2.


At the time of the invention, it would have been obvious to a person of ordinary skill in the art to time-multiplex different kinds of data and carry out modulations by means of the modulation method corresponding to said different kinds. The suggestion/motivation for doing so would have been to provide for distributing video information to mobile object by digital radio communication and to allow performing appropriate accounting on the distributed video information in accordance with the receiving environment of the mobile terminal unit. JP 11-313290, DERWENT, use and advantage. Therefore, it would have been obvious to combine JP 11-313290, with the combination of JP 2000-101542 and JP 11-145928 for the benefit of time-multiplexing different kinds of data and carrying out modulations by means of the modulation method corresponding to said different kinds, to obtain the invention as specified in cl. 8.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW, November 3, 2005


CHI PHAM
PERMISSORY PATENT EXAMINER
12/16/05